

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
12 July 2001 (12.07.2001)

PCT

(10) International Publication Number
WO 01/49865 A1

- (51) International Patent Classification⁷: **C12N 15/60**, 15/53, C12P 7/06, 7/56, C12N 9/04, 9/88, 1/21
- (21) International Application Number: PCT/GB01/00036
- (22) International Filing Date: 5 January 2001 (05.01.2001)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
0000185.9 6 January 2000 (06.01.2000) GB
60/177,199 21 January 2000 (21.01.2000) US
- (71) Applicant (*for all designated States except US*):
ELSWORTH BIOTECHNOLOGY LIMITED
[GB/GB]; Agrol House, Woodbridge Meadows, Guildford,
Surrey GU1 1BA (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): **GREEN, Edward**
[GB/GB]; 32 Station Road, Shalford, Guildford, Surrey
GU4 1BA (GB). **BAGHAEI-YAZDI, Namdar** [GB/GB];
400 Clive Court, Maida Vale, London W9 1SF (GB).
JAVED, Muhammad [PK/GB]; 10 Greenside, Dagen-
ham, Essex RM8 1YB (GB).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ,
DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,
IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
- Published:**
- *With international search report.*
 - *Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.*
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*



WO 01/49865 A1

(54) Title: ETHANOL PRODUCTION

(57) Abstract: This invention relates to ethanol production as a product of bacterial fermentation.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 01/00036

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/60 C12N15/53 C12P7/06 C12P7/56 C12N9/04
C12N9/88 C12N1/21

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C12P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, BIOSIS, STRAND, EMBASE, PASCAL, EMBL

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	HARTLEY, B. S. ET AL: "Development and economics of a novel thermophilic ethanol fermentation" BIOTECH 83, pages 895-905, XP000999813 London paprapgraph spanning pages 896/897 page 896, paragraph 3 ---	1-20, 22-25
Y	US 5 916 787 A (BARBOSA-ALLEYNE MARIA D F ET AL) 29 June 1999 (1999-06-29) the whole document --- -/--	1-20, 22-25

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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- *E* earlier document but published on or after the international filing date
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- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *Z* document member of the same patent family

Date of the actual completion of the International search

31 May 2001

Date of mailing of the International search report

19/06/2001

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Kurz, B

INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 01/00036

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>INGRAM L O ET AL: "Metabolic engineering of bacteria for ethanol production." BIOTECHNOLOGY AND BIOENGINEERING, vol. 58, no. 2-3, 20 April 1998 (1998-04-20), pages 204-214, XP000999111 ISSN: 0006-3592 the whole document, especially the passage bridging pages 207/208</p>	1-20, 22-25
Y	<p>PAYTON, M. A. : "Production of ethanol by thermophilic bacteria" TRENDS IN BIOTECHNOLOGY, vol. 2, no. 6, 1984, pages 153-158, XP000999007 the whole document</p>	1-20, 22-25
A	<p>page 155</p>	21
X	<p>DANNER H ET AL: "Bacillus stearothermophilus for thermophilic production of L-lactic acid." APPLIED BIOCHEMISTRY AND BIOTECHNOLOGY, vol. 70-72, 1 April 1998 (1998-04-01), pages 895-903, XP000999788 ISSN: 0273-2289 the whole document</p>	21
A	<p>DATABASE EMBL 'Online! Acc. No E02669, 8 October 1997 (1997-10-08) MURAKAMI, S. ET AL: "DNA encoding Bacillus sp. L-lactic acid dehydrogenase" XP002168106 nt 1-150</p>	13,22,23

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International Application No

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